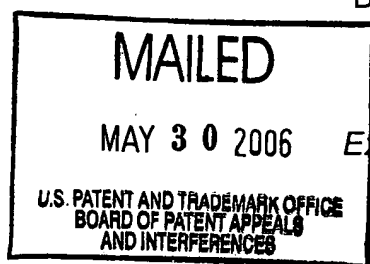


The opinion in support of the decision being entered today  
is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES



*Ex parte* PAUL T. JACOBS, RONALD F. BERRY  
and TOBY A. SOTO

Appeal No. 2006-0492  
Application No. 08/120,303

ON BRIEF

Before: GARRIS, PAK and SPIEGEL, *Administrative Patent Judges*.

SPIEGEL, *Administrative patent Judge*.

**DECISION ON APPEAL**

***I. Introduction***

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 11 and 17 through 19. Claims 12 through 16, 21 and 22, the only other claims pending in this application, have been indicated as allowable by the examiner. We **reverse**.

The claimed invention is directed to a device for vapor sterilization of articles having long, narrow lumens, e.g., endoscopes. The device comprises (a) a vessel having at least a first opening and containing a known amount of a vaporizable antimicrobial either directly therein or indirectly (e.g., the vessel may

be provided with a second opening for attaching a disposable cartridge containing the antimicrobial) and (b) a means for connecting the vessel to the lumen of the article. When the article with the device connected thereto is disposed in a sterilization chamber and the pressure in the chamber is reduced, antimicrobial vapor is generated from the antimicrobial within the vessel and flows directly into the lumen. [Specification, p. 2, ll. 13-26; p. 3, ll. 7-17; p. 4, ll. 24-26; and, p. 7, ll. 26-34.]

Claims 11 and 17 are illustrative and read as follows (emphasis added):

11. A device for delivering antimicrobial vapor to the lumen of an article during solution vapor sterilization, said device comprising a vessel for containing an antimicrobial solution and having an opening therein, and ***means for connecting said opening of said vessel to said lumen said vessel being closed to the ambient atmosphere except through such opening*** said vessel containing a known quantity of antimicrobial solution for vapor formation.

17. A device for delivering antimicrobial vapor to the lumen of an article during solution vapor sterilization, said device comprising a vessel including a cartridge for containing a known quantity of antimicrobial solution and having an opening therein, said vessel including ***means for connecting said opening of said cartridge to said lumen said cartridge being closed to the ambient atmosphere except through such opening*** said cartridge containing a known quantity of antimicrobial solution for vapor formation wherein said means for connecting includes an opening for releasably attaching said cartridge containing a known quantity of antimicrobial solution to form said vessel.

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims and to the respective positions articulated by the appellants and the examiner. We make reference to the examiner's answer ("Answer," mailed 29 December 2004) for the examiner's reasoning in support of the rejection, and to the

appellants' brief ("Brief," filed 13 September 2004), for the appellants' arguments thereagainst.

## **II. ISSUES**

Claims 11 and 17-19 stand rejected under 35 U.S.C. § 112, second paragraph. Specifically, the examiner maintains that the means-plus-function language recited in claims 11 and 17 is indefinite for lack of adequate disclosure of corresponding structure in appellants' specification as articulated in a prior Board decision of April 8, 2000. The examiner further maintains that appellants' specification discloses the "vessel" and the "cartridge" recited in claim 17 are two separate elements and, therefore, the vessel cannot be formed to "include" the cartridge. Consequently, the examiner also maintains that it is unclear whether the "opening" recited in claim 17 is in the vessel or in the cartridge. [Answer, pp. 3-5.]

## **III. DISCUSSION**

The determination of whether a claim is invalid as indefinite "depends on whether those skilled in the art would understand the scope of the claim when the claim is read in light of the specification." *N. Am. Vaccine, Inc. v. Am. Cyanamid Co.*, 7 F.3d 1571, 1579, 28 USPQ2d 1333, 1339 (Fed. Cir. 1993) (citation omitted). "[I]f one employs means-plus-function language in a claim, one must set forth in the specification an adequate disclosure showing what is meant by that language. If an applicant fails to set forth an adequate disclosure, the applicant has in

effect failed to particularly point out and distinctly claim the invention as required by the second paragraph of section 112." *In re Donaldson Co.*, 16 F.3d 1189, 1195, 29 USPQ2d 1845, 1850 (Fed. Cir. 1994) (*en banc*).

Appellants point out that Figures 1 and 2 describe structure corresponding to the means-plus-function language of claim 11 (Brief, ¶¶ bridging pp. 5-6). As explained in appellants' specification, "[i]n the device depicted in Figure 1, the means for connecting the vessel 14 to the end of the tube comprises an expandable sheath 16, one end of which is securely attached to the vessel, and the other end of which comprises an elastic ring 18, making a releasable attachment about the end of the tube" (specification, p. 10, ll. 27-32). "Another embodiment of the device of the present invention is depicted in Figure 2 where ... [t]he means for connecting the vessel 34 to the tubular instrument comprises a bushing 36 disposed within the open end of the vessel. In the particular embodiment shown in Figure 2, the bushing comprises a series of rings 38 and 40 of inwardly extending plastic flaps defining a flexible aperture 32 to receive the tubular instrument." [*Id.*, p. 11, ll. 23-31.]

Appellants similarly point to Figure 2A as describing structure corresponding to the means-plus-function language of claim 17 (Brief, ¶¶ bridging pp. 6-7). According to appellants' specification (p. 12, ll. 8-28),

Figure 2A illustrates a variation in the design of the device Fig. 2 which utilizes the same basic vessel and means for attachment to a tubular device. In the device shown in Fig. 2A, end 45 of the vessel opposite the open end is provided with aperture 46 for attaching a disposable cartridge 47 containing a supply of antimicrobial on a substrate such as a

woven or nonwoven fabric or sponge 48 as illustrated. The aperture 46 of the vessel is designed in conjunction with neck 49 of the cartridge to provide quick and easy attachment and release of the cartridge and the vessel. In the embodiment shown in Fig. 2A, aperture 46 is provided with reverse threads for engaging the threads of the neck 49 of the cartridge. In this variation of the device it is not necessary for a substrate contain [sic] the antimicrobial solution to be disposed within the vessel since the antimicrobial solution is provided in premeasured aliquots in the cartridges. With the device of Fig. 2A one achieves convenience and accuracy of disposable, premeasured aliquots of antimicrobial solution without the expense associated with the device of Fig. 2.

The record now before us is not the same record upon which the earlier decision was based. The present record is more expansive. Claims have been amended. Based on the present record, we agree with appellants that their specification provides an adequate disclosure of structure corresponding to the means-plus-function language of claims 11 and 17 at the indicated cites.

In regard to the remaining language at issue in claim 17, appellants argue that the "vessel" of claim 17 refers to the entire device shown in Fig. 2A, i.e., "the cartridge 47 and the connection portion attached thereto and having the elastomeric rings 38 and 40 contained therein" (Brief, p. 6, ¶ 2). In other words, appellants' position is that the "vessel" of claim 17 comprises a basic vessel, i.e., the connection portion shown in Fig. 2A, which has been modified by adding an aperture for attaching the open end a cartridge thereto and an attached cartridge containing a known quantity of antimicrobial solution. Finally, appellants contend that

the language "having an opening therein" is not confusing when read in context with what follows, i.e., "said vessel including means for connecting said opening of said cartridge to said lumen" (Brief, p. 7, ¶ 3).

"If the claims read in light of the specification reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. The degree of precision necessary for adequate claims is a function of the nature of the subject matter." *Miles Lab., Inc. v. Shandon, Inc.*, 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993) (internal citations omitted). There is no requirement that claimed subject matter must be describe *in haec verba*. *Eiselstein v. Frank*, 52 F.3d 1035, 1038, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995). Words, structures, figures, diagrams, formulas, etc. may be used to describe the claimed subject matter. *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572, 41 USPQ2d 1961, 1966 (Fed. Cir. 1997). Here, "a vessel including a cartridge" as recited in claim 17 is reasonably consistent with the disclosure in appellants' specification discussed above regarding Figure 2A. Finally, appellants' argument pointing out that claim 17 further recites "said opening of said cartridge" stands un rebutted. Therefore, it appears reasonably clear that the "opening" recited in claim 17 refers to "said opening of said cartridge."

Accordingly, based on the foregoing and for the reasons  
given, the decision of the examiner to reject claims 11 and 17-19  
under 35 U.S.C. § 112, second paragraph, is ***reversed***.

REVERSED

<u>\ss\ Bradley R. Garris</u>	)	
BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
	)	
<u>\ss\ Chung K. Pak</u>	)	BOARD OF
CHUNG K. PAK	)	PATENT APPEALS
Administrative Patent Judge	)	AND INTERFERENCES
	)	
<u>\ss\ Carol A. Spiegel</u>	)	
CAROL A. SPIEGEL	)	
Administrative Patent Judge	)	

CAS/lp

cc: AUDLEY A. CIAMPORCERO, JR.  
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